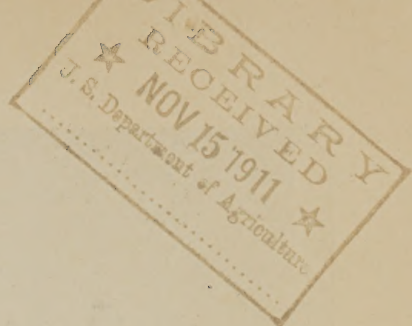


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Issued November 14, 1911.

United States Department of Agriculture,

BUREAU OF PLANT INDUSTRY,

Corn Investigations,

WASHINGTON, D. C.

HAVE YOU A MORE PRODUCTIVE CORN THAN FIRST- GENERATION CROSS NO. 182?

First-Generation Cross No. 182 has proved remarkably productive, much more productive than any other cross or variety of corn tested near Washington, D. C., and it is desired to conduct cooperative tests to ascertain how extensively it can be grown with greater profit than other varieties. This circular tells of the origin and gives a brief description of this cross and of the plan of conducting cooperative field tests.

First-Generation Cross No. 182 was produced by cross-pollinating U. S. Cross No. 120 with pollen of U. S. Selection No. 119, both of which are profitable varieties of corn in Maryland and Virginia. The cross-pollinated seed has proved to be about 20 per cent more productive than either parent.

U. S. SELECTION NO. 119.

U. S. Selection No. 119 has been developed from Boone County White corn originated in 1880 by James Riley in Boone County, Ind.

Since 1902 U. S. Selection No. 119 has been undergoing improvement in productiveness and adaptation to climatic and soil conditions near Washington, D. C., by the yearly planting of an ear-to-row seed plat and by careful seed selection. When tested with other varieties near Washington, U. S. Selection No. 119 has often proved the most productive, though U. S. Cross No. 120 has sometimes yielded equally well.

U. S. CROSS NO. 120.

U. S. Cross No. 120 was originated by the Office of Corn Investigations of the Bureau of Plant Industry in 1902 by cross-pollinating the 8-rowed Hickory King variety with pollen of U. S. Selection No. 119, shown in figure 1.

Since 1903 U. S. Cross No. 120 has been undergoing improvement in productiveness and adaptation to climatic and soil conditions near Washington, D. C., by the yearly planting of an ear-to-row seed plat and by careful seed selection. Each year U. S. Cross No. 120 has proved among the most productive of the varieties tested near Washington.

FIRST-GENERATION CROSS NO. 182.

The strain of corn produced by pollinating U. S. Cross No. 120 with pollen of U. S. Selection No. 119 is known as U. S. Cross No. 182, and seed thus cross-pollinated is designated as First-Generation Cross No. 182.

As the appearance of U. S. Cross No. 120 is not changed when pollinated with U. S. Selection No. 119, First-Generation Cross No. 182 looks like U. S. Cross No. 120, shown in figure 2. In appearance the plants produced by First-Generation Cross No. 182 vary considerably, but are in general intermediate between the two parents. Under good conditions the stalks attain a height

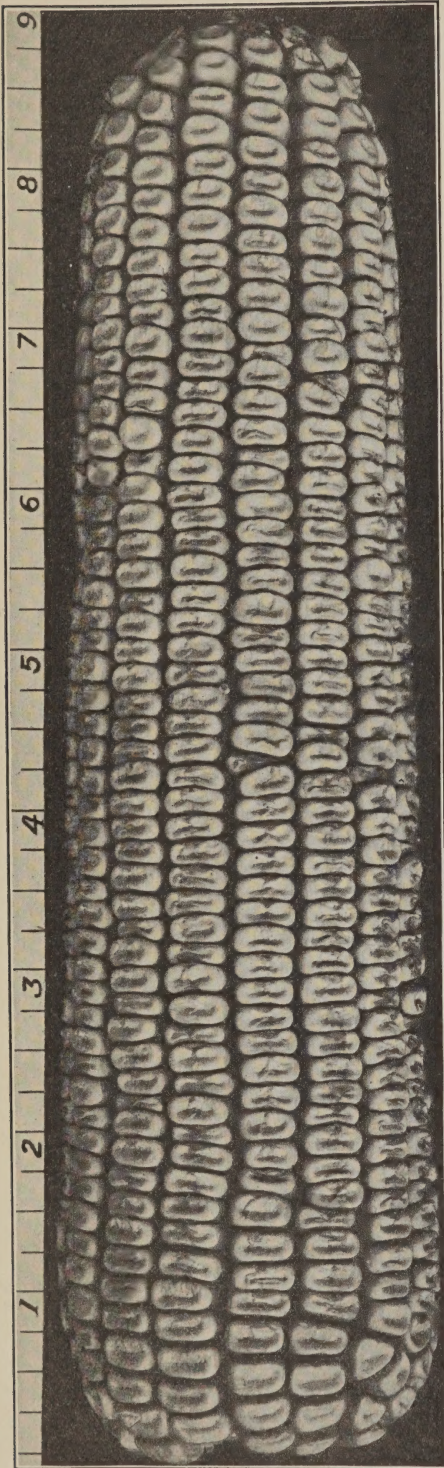


FIG. 1.—A typical ear of U. S. Selection No. 119.

of 9 or 10 feet and mature in 120 days. Some of the stalks produce one large ear each, while many produce more than one ear each. The ears are white, fairly smooth, and have large kernels.

PLAN OF CONDUCTING COOPERATIVE FIELD TESTS.

In order to learn whether there are in Maryland and Virginia strains more productive than First-Generation Cross No. 182, the Office of Corn Investigations will send a peck of this seed to farmers suitably located who wish to make a reliable test of it in comparison with the corn they have thus far found most productive and then report the results.

A sample report blank and an application card accompany this circular or will be furnished upon application. Any farmer wishing to make a test of the productivity of his corn as compared with First-Generation Cross No. 182, and who is willing to supply the information outlined on the report blank, should fill out the application card plainly and mail it previous to February 1, 1912.

POINTS REGARDING THE FIELD TESTING OF CORN.

A reliable test can be made of the comparative productiveness of two varieties of corn that mature at about the same time by planting an abundance of seed of each variety in adjacent rows and thinning all rows to the same number of stalks. The rows can be planted with a 2-row corn planter with seed of the two varieties in different seed boxes of the planter. If a corn planter is used, plates with

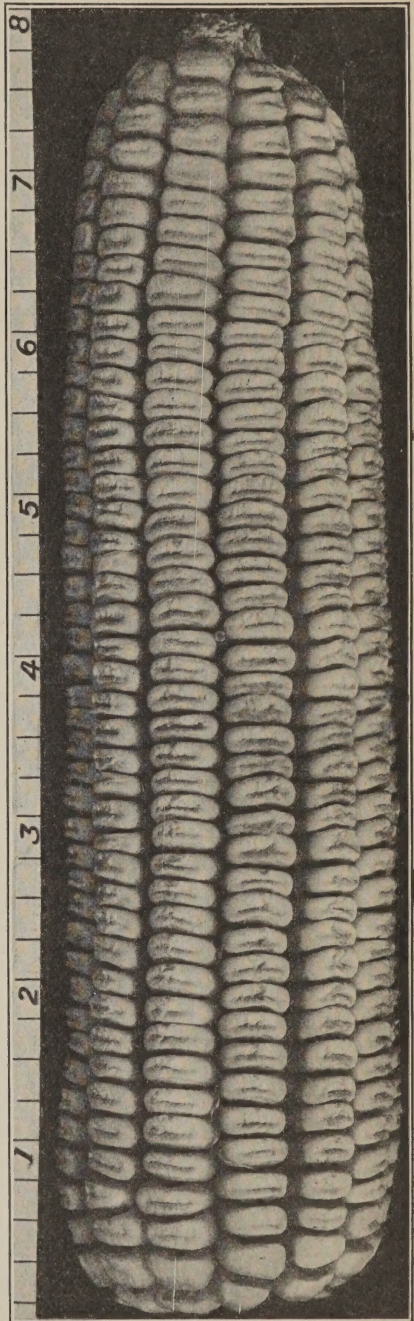


FIG. 2.—A typical ear of U. S. Cross No. 120.

large holes must be used for First-Generation Cross No. 182, as the kernels are large. The varieties tested should be planted at the same time, in the same manner, side by side on similar soil and given similar care throughout the season.

C. P. HARTLEY,
In Charge of Corn Investigations.

Approved:

B. T. GALLOWAY,
Chief of Bureau.

SEPTEMBER 5, 1911.

